AMENDMENTS TO THE SPECIFICATION

Please delete the paragraphs, starting on page 14, lines 17-26, as follows:

~~These and other aspects of the present invention shall now be further described, by way of example only, and with reference to the accompanying Figures which show:~~

~~Figure 1 is a schematic representation of conjugation between cholic acid and tetragastrin according to an embodiment of the present invention;~~

~~Figure 2 is a graph depicting the effect of intravenous tetragastrin (G4) (12.5μg kg^{-1}, first and third arrows), and ileally infused G4 (2500μg kg^{-1} in 1.0ml saline, second arrow) on gastric secretion in μmol 15 min^{-1} in an anaesthetised rat;~~

Please delete the paragraphs, starting on page 15, lines 1-26, as follows:

~~Figure 3 is a graph depicting the effect of intravenous cholate conjugated tetrapeptide (G4-CA) (15μg kg^{-1}, first and third arrow), and ileally infused G4-CA (600μg kg^{-1}, second arrow) on gastric acid secretion in μmol 15min^{-1} in an anaesthetised rat;~~

~~Figure 4 is a graph depicting the effect of intravenous injection of G4-CA (15μg kg^{-1}, first arrow), jejunal infusion of G4-CA (600μg kg^{-1} in 1.0ml, second arrow) and ileal infusion of G4-CA (600μg kg^{-1} in 1.0ml, third arrow) on gastric acid secretion in μmol 15min^{-1} in an anaesthetized rat;~~

~~Figure 5 is a graph depicting the effect of intravenous cholate conjugated decapeptide (G10-CA) (3.3μg kg^{-1}, first and third arrows), and ileally infused G10-CA (1000μg kg^{-1} in 1.0ml, second arrow) on gastric acid secretion in an anaesthetised rat;~~

~~Figure 6 is a graph depicting the effect of intravenous cholate conjugated 34-mer-gastrin (G34-CA) (14ng kg^{-1}, first and third arrows), and ileally infused G34-CA (2700μg kg^{-1} in 1.0ml, second arrow) on gastric acid secretion in an anaesthetised rat; and~~

~~Figure 7 is a graph depicting the effect of intravenous cholate conjugated 34-mer-gastrin (G134-CA) (14 ng kg^{-1}, first arrow), ileally infused G34-CA (2700 μg kg^{-1} in 1.0 ml, second arrow) and ileally infused G34 (5250 μg kg^{-1} in 1.0 ml, third arrow) on gastric acid secretion in an anaesthetised rat.~~

Please replace the paragraph on page 17, line 1, with the following rewritten paragraph:

Trp-Met-Asp-Phe-amide (G10-CA), 34 mer-gastrin (pGlu-Leu-Gly-Pro-Gln-Gly-Pro-Gln-His-Phe-Ile-Ala-Asp-Leu-Ser-Lys-Lys-Gln-Arg-Pro-Pro-Met-Glu-Glu-Glu-Glu-Glu-Ala-Tyr-Gly-Trp-Met-Asp-Phe-NH_2) and cholate-Glu-Leu-Gly-Pro-Gln-Gly-Pro-Gln-His-Phe-Ile-Ala-Asp-Leu-Ser-Lys-Lys-Gln-Arg-Pro-Pro-Met-Glu-Glu-Glu-Glu-Glu-Ala-Tyr-Gly-Trp-Met-Asp-Phe-NH_2 (G34-CA) the latter five being synthesised *de novo* using Pioneer Peptide Synthesis System, PerSeptive Biosystems. For cholate-conjugated peptides, the final stage involved coupling of the terminal carboxyl group of cholic acid with the amine group of last amino acid in the peptide sequence ~~(see Figure 1)~~. The method which is described in the Pioneer Peptide Synthesis User's Guide will be known to those skilled in the art of peptide synthesis.

Please replace the paragraph on page 18, line 12, with the following rewritten paragraph:

The key experiment was to test whether G4-CA was absorbed from the small intestine: in this case, the relatively low dose of 600μg kg^{-1} G4-CA was injected intra-ileally. However, first, it was necessary to confirm that G4-CA had normal biological activity when injected intravenously. The first intravenous injection of G4-CA (15μg kg^{-1}) caused a significant mean peak increase above baseline in total acidity of 0.64 ± 0.26μmol $15min^{-1}$ (p=0.017), while the second I.V. injection also caused a significant increase of 0.72 ± 0.26μmol 15 min^{-1} (P=0.003). ~~A typical result is shown in Figure 3.~~

Please replace the paragraph on page 19, line 8, with the following rewritten paragraph:

When the G4-CA was infused into the jejunum, no increase in gastric acid secretion occurred~~, as shown by the typical experiment in Figure 4~~. Furthermore, when this jejunal infusion was then followed after 3hr by ileal infusion of G4-CA, gastric acid secretion was strongly stimulated.

Please replace the paragraph on page 20, line 2, with the following rewritten paragraph:

The action of G10 on gastric acid secretion when injected I.V. in the same molar dose as G4 (36μg kg^{-1}) in 5 rats was to cause a significant stimulation of the peak gastric acid secretion by 1.28 ± 0.93μmol (P=0.036) in response to the initial injection and by 1.45 ± 1.15μmol (P=0.048) in response to the second injection at the end of the experiment. Infusion of a large dose of G10 (6600μg kg^{-1} in 1.0ml) into the ileum did not significantly affect gastric acid secretion (-1.22 ± 1.93μmol 180min^{-1}, P=0.23). ~~The experimental data were similar to those shown in Figure 2.~~

Please replace the paragraph on page 20, line 12, with the following rewritten paragraph:

By contrast, G10-CA proved to cause responses showing several differences from G10. In 5 rats the following results were obtained. First, G10-CA I.V. was biologically much more active than G10. Even after reduction of the dose to 3.3μg kg^{-1} a marked stimulation of gastric acid secretion resulted as shown by significant increases in the mean peak responses: 5.69 ± 1.46μmol (P=0.001) in response to the first injection and 7.32 ± 2.69μmol (P=0.004) in response to the second injection. This implies that conjugation of G10 to cholate improves ~~bioavailablity~~ bioavailability and activity of G10 when administered intravenously~~, and is illustrated in the typical result in Figure 5~~.

Please replace the paragraph on page 21, line 5, with the following rewritten paragraph:

In 5 rats, the action of G34 on gastric acid secretion when injected I.V. with a near threshold dose (10 ng kg^{-1}) was to cause a significant stimulation of the peak gastric acid secretion by 0.14 ± 0.034 μmol (P=0.0008) in response to the initial injection and 0.23 ± 0.051 μmol (P=0.0005) in response to the second injection at the end of the experiment. Infusion of G34 at the high dose 10.5 mg kg^{-1} in 1.0ml into the ileum did not cause a significant change in mean gastric acid secretion (0.202 ± 0.262 μmol 180min^{-1}, P=0.16). ~~The experimental data were similar to those shown in Figure 5.~~

Please replace the paragraph on page 21, line 16, with the following rewritten paragraph:

G34-CA, injected intravenously on an equimolar basis (14 ng kg^{-1}), caused significantly greater responses than G34 ($P<0.0036$). In response to the first I.V. injection, the mean peak response was 0.254 ± 0.023 μmol ($P=0.0001$) and in response to the second I.V. injection was 0.400 ± 0.047 μmol ($P=0.0001$). ~~This is illustrated in the typical result in Figure 6.~~ When G34-CA was infused intra-ileally (2700μg kg^{-1} in 1.0ml), stimulation of gastric acid secretion occurred with a mean increase of $1.742 \pm 0.277$$\mu$mol $180min^{-1}$ ($P=0.0001$). This confirms that a molecule as large as 34-mer gastrin is transportable across the wall of the small intestine.

Please replace the paragraph on page 22, line 2, with the following rewritten paragraph:

In the prior art, the absorption of peptide hormones or polysaccharides has been described by the mixing of the peptide hormone or polysaccharide with other transport enhancing substances, including bile salts (WO 96/06635 and US 5,866,536). Such a facilitatory action has also been observed with the cholate conjugated derivatives of the present invention. After introduction of the cholate conjugated form of gastrin (G4-CA, G10-CA, G34-CA) into the ileum, absorption of the conjugated gastrin across the ileal wall into the circulation occurred ~~(Figures 3, 5 and 6)~~. When this was followed by ileal instillation of the unconjugated form of gastrin (G4, G10, G34, respectively), absorption of the unconjugated gastrin occurred with a resultant stimulation of gastric acid secretion, whereas injection of the unconjugated gastrin without prior injection of the respective conjugate was without effect on gastric acid secretion ~~(Figure 2)~~. In 4 rats, intraileal infusion of G34 subsequent to intraileal infusion of G34-CA caused a mean increase in gastric acid secretion of 5.68 ± 1.38 μmol 180 min^{-1} ($P=0.004$). ~~This is illustrated in Figure 7, which shows the result for G34 but which is also representative of G4 and G10.~~